AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A handwriting trajectory recognition system, comprising:

a motion detection unit adapted to output electric signals based on changes in acceleration of a body of the system in space; and

a control unit adapted to detect non-stroke regions intervals where the motions of the system body are temporarily stopped and recover handwritings based on the electric signals[[;]] .

~~wherein the control unit determines a range of time where a stroke is present by comparing a standard deviation of the acceleration against a threshold and~~

~~wherein~~

~~the controller determines a non-stroke region by comparing acceleration-related information of a fixed number of samples prior to the range of time against a threshold.~~

wherein the control unit determines an instant time k_1 to be a start of a stroke if $\sigma^{S}_{|A_n|}(k) > \sigma_{th}$ for a time interval [k, k+H],

where $\sigma^{S}_{|A_n|}(k)$ denotes a standard deviation for accelerations $|A_n|$ for S samples up to the k,

σ_{th} is a threshold value for the standard deviation, and

H is a minimum time interval for which $\sigma^{S}_{|A_n|}(k)$ is smaller than the threshold value σ_{th}.

2. (canceled).

3. (original): The handwriting trajectory recognition system of claim 1, wherein the control unit determines a start of a stroke by comparing standard deviation of a fixed number of samples of acceleration starting prior to the start up to a fixed time subsequent to the start against a threshold.

4. (original): The space handwriting trajectory recognition system of claim 1, wherein the control unit determines an end of a stroke by comparing a standard deviation of a fixed number of samples up to the end of the stroke against a threshold.

5. (canceled)

6. (currently amended): The space handwriting trajectory recognition system of claim [[5]] 1, wherein the control unit determines (k - S) to be an end of the stroke if $\sigma^{S}_{|A_n|}(k) < \sigma_{th}$ for the time interval [k, k+H] within a time $k \geq k_1 + W$,
where W denotes a minimum time interval prescribed for writing one stroke.

7. (currently amended): A handwriting trajectory recognition method comprising:

detecting changes in acceleration of a body of the system in space;

deciding non-stroke regions if there exist intervals where motions of the system body are temporarily stopped; and

recovering handwritings by the system body based on decision results[[; and]] .

~~where a range of time where a stroke is present is detected by comparing a standard deviation of the acceleration against a threshold~~

~~where the controller determines a non-stroke region by comparing acceleration-related information of a fixed number of samples prior to the range of time against a threshold.~~

wherein an instant time k_1 is determined to be a start of a stroke if $\sigma^{S}_{|A_n|}(k) > \sigma_{th}$ for a time interval [k, k+H],

where $\sigma^{S}_{|A_n|}(k)$ denotes a standard deviation for accelerations $|A_n|$ for S samples up to the k,

σ_{th} is a threshold value for the standard deviation, and

H is a minimum time interval for which $\sigma^{S}_{|A_n|}(k)$ is smaller than the threshold value σ_{th}.

8. (canceled).

9. (original): The method of claim 7 where a start of a stroke is determined by comparing standard deviation of a fixed number of samples of acceleration starting prior to the start up to a fixed time subsequent to the start against a threshold.

10. (original): The method of claim 7 where an end of a stroke is determined by comparing a standard deviation of a fixed number of samples up to the end of the stroke against a threshold.

11. – 12. (canceled).